UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/716,009	11/18/2003	Min-Ju Kim	P2051US	4195

8968 7590 06/27/2007

DRINKER BIDDLE & REATH LLP
ATTN: PATENT DOCKET DEPT.
191 N. WACKER DRIVE, SUITE 3700
CHICAGO, IL 60606

EXAMINER	
LE, TUAN H	

ART UNIT	PAPER NUMBER
2622	

MAIL DATE	DELIVERY MODE
06/27/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/716,009	KIM, MIN-JU	
	Examiner	Art Unit	
	Tuan H. Le	2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 April 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *18 November 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

Applicant's arguments filed April 13, 2007 have been fully considered but they are not persuasive. Thus claims 1-10 maintain as being rejected. The followings are Examiner's arguments.

Regarding claims 1, 2, and 4-9, applicant argues that "nowhere does the Shigemori reference teach or suggest that the rectangular mark defining the area of interest is used to detect the outline of a figure", (see Remarks, three bottom lines of page 6 and first line of page 7). However, the examiner disagrees.

Referring to Shigemore reference, (Fig. 6 and column 3 lines 1-10), Shigemore discloses *an area designated by the rectangular mark*; this area is correspondent to the claimed *"detection area"*. Furthermore, Shigemore discloses *an outline, such as the face, of the input original*; this outline of the input original image is correspondent to the claimed *"outline of a figure"*. A user resizes and/or moves around the rectangular mark in order to circumscribe the face; the resizing and/or moving are/is correspondent to the claimed "detecting".

Therefore, Shigemore discloses, "*detecting the outline of a figure within the detection area*".

Regarding claims 3 and 10, in which the limitation of "*inserting a background image for the identification photograph in the deleted background*" is included, applicants argues that "the Yang reference does not teach or suggest the use of a detection area to detect the outline of a figure". However, applicant's argument is addressed in discussion of claim 1, as shown above. In addition,

Examiner emphasizes that the Yang reference is used involving identification photography, such as passports, identification badges, or driver license, which is contrived to eliminate any influence a background may have on the main subject.

Claim Objections

Claims 1 and 10 are objected to because of the following informalities:

In claims 1 and 10, "the outline" should be changed to "an outline".

In claims 2 and 10, "the background" should be changed to "a background".

In claims 5, "the zoom factor" should be changed to "a zoom factor ".

Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-2 and 4-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stephany et al (U.S. Pub. 2002/0171746 A1) and further in view of Shigemori (U.S. Pat. 6,907,136 B1).

Regarding **claim 1**, Stephany et al discloses a method for capturing images using templates, the method comprising: displaying a frame (20) and a

reference outline (24) in a display unit, (see Stephany et al, Fig. 2 and Fig. 3); performing photography (112), (see Stephany et al, Fig. 1).

However, Stephany et al does not disclose displaying a detection area adjacent to the reference outline and detecting the outline of a figure within the detection area.

On the other hand, Shigemori discloses displaying a detection area adjacent to the reference outline, (see Shigemori, Fig. 6) and detecting the outline of a figure within the detection area, (see Shigemori, column 3 lines 1-10).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine displaying a detection area and detecting the outline of a figure within the detection area as described by Shigemori with the image capture using templates as described by Stephany et al in order to form a method of controlling operation of a digital camera to take an identification photograph in a natural setting because an ID photograph requires standardized formats and layouts in which ID bearer's desired head and shoulders must be correctly included; thereby, camera users is able to easily make an ID photo that meets predetermined criteria.

As for **claim 2**, as previously mentioned in the discussion of claim 1, Stephany et al and Shigemori disclose all of the limitations of the parent claim. However, both Stephany et al and Shigemori do not disclose, in discussion of claim 1, deleting the background area of the photographed image with respect to the detected out line.

On the other hand, Shigemori discloses deleting the background area of the photographed image with respect to the detected outline, (see Shigemori, Fig. 5 and column 3 lines 21-60).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement deletion of background area as described by Shigemori into the method of controlling operation of a digital camera to take an identification photograph in a natural setting because such implementation eliminate all unnecessary distraction of the background; thereby, the ID photo is clear and useful whenever presented to authorities.

As for **claim 4**, as previously mentioned in the discussion of claim 1, Stephany et al and Shigemori disclose all of the limitations of the parent claim. Moreover, Stephany et al discloses that the type of frame and reference outline correspond to specifications input by a user, (see Stephany et al, Fig. 2 and paragraph [0034]).

As for **claim 5**, as previously mentioned in the discussion of claim 1, Stephany et al and Shigemori disclose all of the limitations of the parent claim. Furthermore, Stephany et al discloses that the step of performing photography includes allowing a user to aim the camera and set the zoom factor, (see Stephany et al, Fig. 3 and paragraphs [0034] and [0039]).

As for **claim 6**, as previously mentioned in the discussion of claim 5, Stephany et al and Shigemori disclose all of the limitations of the parent claim. Furthermore, Stephany et al discloses the zoom is an optical zoom, (see Stephany et al, paragraph [0034]).

As for **claim 7**, as previously mentioned in the discussion of claim 1, Stephany et al and Shigemori disclose all of the limitations of the parent claim. Furthermore, Stephany et al discloses the step of performing photography includes taking a digital photograph, (see Stephany et al, Fig. 1 and paragraph [0036]).

As for **claim 8**, as previously mentioned in the discussion of claim 1, Stephany et al and Shigemori disclose all of the limitations of the parent claim. Furthermore, Shigemori discloses the step of performing photography includes enlarging or contracted the detection area, (see Shigemori, column 3 lines 7-10).

As for **claim 9**, as previously mentioned in the discussion of claim 8, Stephany et al and Shigemori disclose all of the limitations of the parent claim. Furthermore, Shigemori discloses the detection area is enlarged or contracted based on user input, (see Shigemori, column 3 lines 7-10).

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stephany et al (U.S. Pub. 2002/0171746 A1) and further in view of Shigemori (U.S. Pat. 6,907,136 B1) and Bollman et al (U.S. Pat. 5,978,519).

Regarding claim 11, as previously mentioned in the discussion of claim 1, Stephany et al and Shigemori disclose all of the limitations of the parent claims. However, Stephany et al and Shigemori does not disclose detecting the outline of the figure based on pixels having a relatively greater gradation difference among pixels in the detection area.

On the other hand, Bollman et al disclose detecting the outline of the figure based on pixels having a relatively greater gradation difference among

pixels in the detection area, (see Bollman et al, Figs. 4A, 4B, 4C, 4D, and 5, wherein a threshold variance is selected and any image blocks whose variance is higher than the threshold variance is selected as a region of interest, column 4 lines 20-43).

Therefore, it would have been obvious to an artisan to implement the detection of an outline as described by Bollman et al into the method of controlling operation of a digital camera to take an identification photograph in a natural setting in order to distinguish a figure from an image background. Such implementation allows cropping a background from an image figure, thus a standardized background can be inserted for a desired identification photograph.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stephany et al (U.S. Pub. 2002/0171746 A1) and further in view of Shigemori (U.S. Pat. 6,907,136 B1) and Kage (U.S. Pub. 2002/0070945).

Regarding claim 12, as previously mentioned in the discussion of claim 1, Stephany et al and Shigemori disclose all of the limitations of the parent claims. However, Stephany et al and Shigemori does not disclose that the detection area encompasses the reference outline, such that a portion of the detection area is within an area defined by the reference outline, an another portion of the detection area is outside of the area defined by the reference outline.

On the other hand, Kage disclose that the detection area encompasses the reference outline, such that a portion of the detection area is within an area defined by the reference outline, an another portion of the detection area is outside of the area defined by the reference outline (see Kage, Fig. 2J, wherein

the rectangular 8 encompasses the face and the outline separates portions of the rectangular).

Therefore, it would have been obvious to an artisan to implement the detection area as described by Kage into the method of controlling operation of a digital camera to take an identification photograph in a natural setting in order to determine a border between a face outline and a background. Such implementation allows inserting a new background without changing the face outline, thus obtaining an ID photo with desired background.

Claims 3 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stephany et al (U.S. Pub. 2002/0171746 A1) and further in view of Shigemori (U.S. Pat. 6,907,136 B1) Yang et al (U.S. Pat. 5,923,380).

As for **claim 3**, as previously mentioned in the discussion of claim 2, Stephany et al and Shigemori disclose all of the limitations of the parent claim. However, Stephany et al and Shigemori do not disclose inserting a background image for the identification photograph in the deleted background area.

On the other hand, Yang et al discloses inserting a background image for the identification photograph in the deleted background area, (see Yang et al, column 5 lines 48-52).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement inserting a background image for the identification photograph in the deleted background area as described by Yang et al into the method as described by Stephany et al and Shigemori to form a method for ID photograph in which a background replacement is performed

because this implementation does not require a photobooth where a standard background must be present. Thus, it is more convenient for camera users since they can take an ID photograph everywhere.

Regarding **claim 10**, Stephany et al discloses a method for capturing images using templates, the method comprising: allowing a user to input specifications corresponding to type of frame and reference outline for the identification photograph, (see Stephany et al, Fig. 2 and paragraph [0034]); Stephany et al discloses displaying the corresponding frame (20) and the corresponding reference outline (24) in a display unit, (see Stephany et al, Fig. 2 and Fig. 3); Stephany et al discloses allowing the user to aim the camera and set the zoom factor, (see Stephany et al, Fig. 3 and paragraphs [0034] and [0039]); Stephany et al discloses taking a digital photograph (112), (see Stephany et al, Fig. 1).

However, Stephany et al does not disclose displaying a detection area adjacent to the reference outline; Stephany et al does not disclose enlarging, contracting, or maintaining the detection area; Stephany et al does not disclose detecting the outline of a figure within the detection area; Stephany et al does not disclose deleting the background area of the photographed image with respect to the detected outline.

On the other hand, Shigemori discloses displaying a detection area adjacent to the reference outline, (see Shigemori, Fig. 6); Shigemori discloses enlarging or contracted the detection area, (see Shigemori, column 3 lines 7-10); Shigemori discloses detecting the outline of a figure within the detection area,

(see Shigemori, column 3 lines 1-10); Shigemori discloses deleting the background area of the photographed image with respect to the detected outline, (see Shigemori, Fig. 5 and column 3 lines 21-60).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine displaying a detection area adjacent to the reference outline; enlarging, contracting, or maintaining the detection area; detecting the outline of a figure within the detection area; deleting the background area of the photographed image with respect to the detected outline as described by Shigemori with the image capture method using templates as described by Stephany et al in order to form a method of controlling operation of a digital camera to take an identification photograph in a natural setting because an ID photograph requires standardized formats and layouts in which ID bearer's desired head and shoulders must be correctly shown on a predetermined background.

However, both Stephany et al and Shigemori do not disclose inserting a background image for the identification photograph in the deleted background area.

On the other hand, Yang et al discloses inserting a background image for the identification photograph in the deleted background area, (see Yang et al, column 5 lines 48-52).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement inserting a background image for the identification photograph in the deleted background area as described by

Yang et al into the method as described by Stephany et al and Shigemori to form a method for ID photograph in which a background replacement is performed because this implementation does not require a photo booth where a standard background must be present. Thus, it is more convenient for camera users since they can take an ID photograph everywhere as long as there exists a subject who needs an ID photograph.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stephany et al (U.S. Pub. 2002/0171746 A1) and further in view of Shigemori (U.S. Pat. 6,907,136 B1), Yang (U.S. Pat. 5,923,380), and Bollman et al (U.S. Pat. 5,978,519).

Regarding claim 13, as previously mentioned in the discussion of claim 10, Stephany et al, Shigemori, and Yang disclose all of the limitations of the parent claims. However, Stephany et al, Shigemori, and Yang do not disclose detecting the outline of the figure based on pixels having a relatively greater gradation difference among pixels in the detection area.

On the other hand, Bollman et al disclose detecting the outline of the figure based on pixels having a relatively greater gradation difference among pixels in the detection area, (see Bollman et al, Figs. 4A, 4B, 4C, 4D, and 5, wherein a threshold variance is selected and any image blocks whose variance is higher than the threshold variance is selected as a region of interest, column 4 lines 20-43).

Therefore, it would have been obvious to an artisan to implement the detection of an outline as described by Bollman et al into the method of

controlling operation of a digital camera to take an identification photograph in a natural setting in order to distinguish a figure from an image background as described by Stephany, Shigemori, and Yang. Such implementation allows cropping a background from an image figure, thus a standardized background can be inserted for a desired identification photograph.

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stephany et al (U.S. Pub. 2002/0171746 A1) and further in view of Shigemori (U.S. Pat. 6,907,136 B1), Yang (U.S. Pat. 5,923,380) and Kage (U.S. Pub. 2002/0070945).

Regarding claim 14, as previously mentioned in the discussion of claim 10, Stephany et al, Shigemori, and Yang disclose all of the limitations of the parent claims. However, Stephany et al, Shigemori, and Yang do not disclose that the detection area encompasses the reference outline, such that a portion of the detection area is within an area defined by the reference outline, an another portion of the detection area is outside of the area defined by the reference outline.

On the other hand, Kage disclose that the detection area encompasses the reference outline, such that a portion of the detection area is within an area defined by the reference outline, an another portion of the detection area is outside of the area defined by the reference outline (see Kage, Fig. 2J, wherein the rectangular 8 encompasses the face and the outline separates portions of the rectangular).

Therefore, it would have been obvious to an artisan to implement the detection area as described by Kage into the method of controlling operation of a digital camera to take an identification photograph in a natural setting as described by Stephany, Shigemori, and Yang in order to determine a border between a face outline and a background. Such implementation allows inserting a new background without changing the face outline, thus obtaining an ID photo with desired background.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Omura (U.S. Pat. 6,999,113) discloses an electronic still camera having an instant printer incorporated thereinto, that has an image processing function for making ID photographs.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be

calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan H. Le whose telephone number is (571) 270-1130. The examiner can normally be reached on M-Th 7:30-5:00 F 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David L. Ometz can be reached on (571) 272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Tuan Le/

DAVID OMETZ
SUPERVISORY PATENT EXAMINER